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| 09/855,577 | 05/15/2001 | Christoph Herrmann | DE 000079 | 1429 |

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EXAMINER

KADING, JOSHUA A

ART UNIT PAPER NUMBER

2661

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,577

Applicant(s)

HERRMANN ET AL.

Examiner

Joshua Kading

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10 2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,790,534, Kokko et al. (Kokko) in view of U.S. Patent 5,428,647, Rasky et al. (Rasky).

15 3. Regarding claims 1 and 8-10, Kokko discloses "a wireless network comprising a radio network controller (*col. 7, line 32 discloses a BS 14 which acts as the radio network controller*) and a plurality of assigned terminals (*col. 7, lines line 26 discloses MSs 12 which act as the terminals*) for exchanging useful data and control data, which terminals respectively have a buffer for buffering data packets to be transmitted to the
20 radio network controller via a contention channel and a measuring device for measuring the occupancy level of at least one buffer, characterized in that a terminal, when an occupancy level of a buffer or various buffers is exceeded, is provided for sending a signaling sequence at a start time predefined by the radio network controller (*col. 7, lines 26-32 where the "reservation request" is a message sent from the mobile station to
25 the base station and the mobile uses sequences or codes when sending messages to the base station as seen in Table 2 under spreading codes, therefore the reservation*

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request has a sequence or code in it), in that the radio network controller, after detecting a signaling sequence assigned to a terminal, is arranged for sending an indication to the terminal to further transmit the data packets over a channel assigned only to the terminal (*col. 7, lines 32-38 where the base station receives the message and in*

5 *response informs the terminal of a channel it can use to transmit data*)."

4. However, Kokko lacks what Rasky discloses, "in that the radio network controller includes a device for correlating a signaling sequence sent by a terminal and for detecting the pulse developed from a received and correlated signaling sequence (*col. 4, lines 62-col. 5, lines 1-9 where the M-tap FIR filter 110 is used to correlate the signal*

10 *and the Peak detection mechanism 114 is used to detect the pulse or peak of the signal*)..."

5. It would have been obvious to one with ordinary skill in the art at the time of invention to have the correlator and pulse detector for the purpose of synchronizing the sequence (*Rasky, col. 5, lines 15-19*). The motivation for synchronizing the sequence is

15 that the data, when received, can begin to be decoded at the starting location and a useful and correct message will have been received.

6. Regarding claim 2, Kokko and Rasky disclose the network of claim 1. However, Rasky lacks what Kokko further discloses, "the channel assigned to a terminal is a

20 dedicated channel (*col. 3, lines 9-15 where the data/traffic channel are divided into a plurality of frames and each frame is dedicated to one terminal at a time*)."

It would have

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been obvious to one with ordinary skill in the art to have the channel assigned to the terminal be a dedicated channel for the same reasons and motivation as in claim 1.

7. Regarding claim 3, Kokko and Rasky disclose the network of claim 1. However,
5 Rasky lacks what Kokko further discloses, "a terminal is provided for measuring the occupancy level of the buffer or of various buffers in the layer for the radio link control (*col. 7, lines 26-38 where it is implied that the measuring of the buffer is for the radio link control layer because it is used to make a determination on when data needs to be sent and at what rate*)." It would have been obvious to one with ordinary skill in the art to
10 include the RLC layer for use in measuring the buffer for the same reasons and motivation as in claim 1.

8. Regarding claim 4, Kokko and Rasky disclose the network of claim 1. However, Kokko lacks what Rasky further discloses, "the radio network controller includes a
15 matched filter generating at least one pulse after a signaling sequence has been received (*col. 4, lines 62-col. 5, lines 1-3 where although it is not explicitly stated that the devices of Rasky are in a radio network controller, it is known that any receiver, including a radio network control, in a code based system must have the components in Rasky to properly decode the messages*) and includes a peak detector and in that the
20 peak detector, in a certain detection window whose start time and duration are determined by the channel properties and the start time of a signaling sequence to be detected, is provided for detecting the peak on the output of the matched filter (*col. 5,*

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lines 2-9)." It would have been obvious to one with ordinary skill in the art to include the matched filter with the peak detection for the same reasons and motivation as in claim 1.

5 9. Regarding claim 5, Kokko and Rasky disclose the network of claim 1. However, Rasky lacks what Kokko further discloses, "a terminal is provided for sending a Gold, Kasami or Golay sequence as a signaling sequence at a certain start time (*Table 2, in col. 4, specifically the Spreading codes section where the reverse link uses a Kasami code and the forward link uses a Gold code*)." It would have been obvious to one with
10 ordinary skill in the art to include the Kasami or Gold codes for the same reasons and motivation as in claim 1.

10. Regarding claim 6, Kokko and Rasky disclose the network of claim 1. However, Rasky lacks what Kokko further discloses, "a terminal is provided for sending a
15 signaling sequence at a start time predefined by the radio network controller when a sum of the occupancy levels of all the buffers exceeds a predefined threshold (*col. 7, lines 26-32 where although it is not directly stated that the sum of the buffers exceeds the predefined threshold, it would have been obvious to one with ordinary skill in the art to know that if one buffer exceeds a threshold then the sum of all buffers also exceeds a*
20 *threshold for sending the sequence*)." It would have been obvious to one with ordinary skill in the art to have the sum of all the buffers exceed the threshold for the same reasons and motivation as in claim 1.

11. Regarding claim 7, Kokko and Rasky disclose the network of claim 1. However, Rasky lacks what Kokko further discloses, "a terminal is provided for transmitting further information about the traffic load of the terminal over the channel after receipt of the indication and a changeover to the assigned channel (*col. 7, lines 32-34 where the mobile station, or terminal, is capable of sending capacity, or traffic load, needs for transmission*)."

5 It would have been obvious to one with ordinary skill in the art to further transmit traffic load information for the same reasons and motivation as in claim 1.

10

Response to Arguments

12. Applicant's arguments, see REMARKS, page 8, "Specification", filed 24 November 2004, with respect to the objection to the Specification have been fully considered and are persuasive. The objection of the Specification has been withdrawn.

15

13. Applicant's arguments, see REMARKS, page 8, "Claims", section A, filed 24 November 2004, with respect to the objection to the claims 5 and 10 have been fully considered and are persuasive. The objection of claims 5 and 10 has been withdrawn.

20

14. Applicant's arguments, see REMARKS, page 8, "Claims", section B, filed 24 November 2004, with respect to the objection to the claim 7 have been fully considered and are persuasive. The objection of claim 7 has been withdrawn.

15. Applicant's arguments filed 24 November 2004 have been fully considered but they are not persuasive.

16. Regarding the rejections of independent claims 1 and 8-10 (and thusly, dependent claims 2-7) applicant argues that neither Kokko nor Rasky disclose "a start
5 time predefined by the [radio network controller]" to transmit a signalling sequence. The examiner respectfully disagrees.

17. Although the portion of Kokko indicated in the rejection (*col. 7, lines 26-32*) as reading on the particular limitation of applicant's claim(s) under discussion does not specifically mention a start time for transmission, Kokko does in fact disclose that the
10 radio network controller is used to control when the mobile stations are allowed to transmit (*col. 11, lines 11-14*). Further, Kokko (as well as Rasky) can be utilized in a TDMA system (*Kokko, col. 11, lines 50-52; Rasky, col. 3, lines 39-41*), which, as is well known in the art, makes use of timeslots for each mobile to transmit. These timeslots must be assigned and this is done through a radio network controller. Therefore, a
15 TDMA system inherently has the radio network controller assigning a predefined start time for transmission at each mobile station. Given the aforementioned, Kokko in view of Rasky fully reads on applicant's invention as currently claimed.

Conclusion

20 18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Joshua Kading
Examiner
Art Unit 2661

April 12, 2005



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SUPERVISORY PATENT EXAMINER
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